

CLAIMS

1. In an amplification apparatus having a distortion detection
5 loop that detects distortion components contained in an amplified signal to be
amplified that is amplified by an amplifier, and a distortion removal loop that
removes distortion components from the amplified signal, using the distortion
components detected by the distortion detection loop, combines a reference
signal with the signal to be amplified, and performs control relating to
10 distortion compensation, using said reference signal,

an amplification apparatus characterized in that the signal to be
amplified is detected and output of said reference signal is controlled in
accordance with a state of the detected signal to be amplified.

15 2. In an amplification apparatus having a distortion detection
loop that detects distortion components contained in an amplified signal to be
amplified that is amplified by an amplifier, and a distortion removal loop that
removes distortion components from the amplified signal, using the distortion
components detected by the distortion detection loop, combines a reference
20 signal with the signal to be amplified, and performs control relating to
distortion compensation, using said reference signal,

an amplification apparatus characterized by comprising
amplification signal detection means that detects said signal to be amplified,
and

25 reference signal control means that, when the amplification
signal detection means detects that there is no input of a signal to be
amplified, performs control to effect non-output of the reference signal.

3. In an amplification apparatus having a distortion detection
30 loop that detects distortion components contained in an amplified signal to be
amplified that is amplified by an amplifier, and a distortion removal loop that

removes distortion components from the amplified signal, using the distortion components detected by the distortion detection loop, combines a reference signal with the signal to be amplified, and performs control relating to distortion compensation, using said reference signal,

5 an amplification apparatus in which a burst signal is input as the signal to be amplified,

 characterized by comprising an amplification signal level detection means that detects the level of the signal to be amplified, and

 reference signal control means that in response to the level
10 detected by the amplification signal level detection means, performs control to effect non-combination of the reference signal with the signal to be amplified.

4. In an amplification apparatus having a distortion detection loop that detects distortion components contained in an amplified signal to be
15 amplified that is amplified by an amplifier, and a distortion removal loop that removes distortion components from the amplified signal, using the distortion components detected by the distortion detection loop, combines a reference signal with the signal to be amplified, and performs control relating to distortion compensation, using said reference signal,

20 an amplification apparatus in which a burst signal is input as the signal to be amplified,

 characterized by comprising an amplification signal level detection means that detects the level of the signal to be amplified, and

 reference signal control means that performs control to effect
25 non-output of the reference signal when the level detected by the amplification signal level detection means is less than a prescribed threshold value or is equal to or less than a prescribed threshold value.

5. An amplification apparatus according to any of claims 1 to 4,
30 having a reference signal generation circuit means that has a reference signal generation function and a switch that stops output of said

reference signal,

characterized in that means that performs control of the reference signal puts reference signal output into a stop state by switching the switch of the reference signal generation means into an Off state.